| | Application No. | Applicant(s) |
| :---: | :--- | :--- |
| ***Notice of Allowability*** | 09/761,922 | CHRISTENSEN ET AL. |
| | Examiner | Art Unit | |
| | Michael S. A. Delgado | 2144 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *09/05/2006*.

2. ☒ The allowed claim(s) is/are *1-22, 24-57 and 59-62 hereafter 1-60*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All    b) ☐ Some*    c) ☐ None  of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____ .

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date *09/05/2006*

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

## EXAMINER'S AMENDMENT

1.      An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Christopher Braidwood on 9/7/2006.

The application has been amended as follows:


1.      (Currently Amended) A method for use in a process control system

having a plurality of input/output (I/0) networks, the method comprising the steps of:

creating a first unique network identification tag for a first one of the I/O

networks;

creating a second unique network identification tag for a second one of the I/O

networks;

storing the first network identification tag in a first device communicatively

coupled to the first I/0 network;

storing the second network identification tag in a second device

communicatively coupled to the second I/O  network;

identifying the first I/O network with the first network identification tag by

transmitting from the first device the first network identification tag on the first I/O

network; [and]

identifying the second I/0 network with the second network identification tag

by transmitting from the second device the second network identification tag on the

second I/0 network;

accepting a user provided network identifier for a selected I/O network as an

input;

storing the user provided network identifier;

receiving the first network identification tag from the first I/O network comparing the

identity of the I/0 network associated with the user provided network identifier with the identity

of the I/O network associated with the first network identification tag:

generating a first indication if the identity of the I/0 network associated with the first

network identification tag matches the identity of the I/O network associated with the user

provided network identifier; and

generating a second indication if the identity of the 1/O network associated with first

network identification tag does not match the identity of the 1/O network associated with the

user provided network identifier.


2.    (Original) The method of claim 1, wherein the step of creating the

first unique network identification tag for the first I/O network includes the steps of.

creating identification tags for two or more devices, wherein the devices are

communicatively coupled to create a communication pathway from a user interface to

the first I/O network; and

combining the identification tags for each of the two or more devices to create

the first network identification tag.

3. (Original) The method of claim 2, wherein the step of combining the identification tags includes the step of concatenating the identification tag for each of the two or more devices to create the first network identification tag.

4.(Original) The method of claim 2, further including the step of creating a unique identification tag for at least one of the two or more devices.

5.     (Original) The method of claim 1, wherein the step of creating the first network identification tag for the first I/O network includes the steps of:

creating a first unique identification tag for a first device communicatively coupled to an user interface and to the first 1/O network; and

using the first identification tag to create the first network identification tag.

6. (Original) The method of claim 5, wherein the step of creating the first unique identification tag for the first device includes the step of creating the first unique identification tag for a process controller communicatively coupled to the user interface and to the first 1/O network.

7. (Original) The method of claim 5, wherein the step of creating the first unique identification tag for the first device includes the step of creating the first

unique identification tag for an I/0 device communicatively coupled to the user

interface and to the first I/0 network.


8.(Original) The method of claim 5, wherein the step of creating the

first unique network identification tag for the first I/0 network includes the steps of

creating a second identification tag for a second device communicatively

coupled to the first device and to the first I/0 network; and

using the second identification tag to create the first network identification tag.


9.     (Original) The method of claim 8, wherein the step of creating the first network

identification tag for the first I/0 network includes the step of concatenating the first

identification tag and the second identification tag to create the first network identification tag.


10.    (Original) The method of claim 1, wherein the step of storing the first network

identification tag in the first device communicatively coupled to the first I/O  network includes

the step of storing the first network identification tag in a process controller communicatively

coupled to the first I/O  network.


11.    (Original) The method of claim 1, wherein the step of storing the first network

identification tag in the first device communicatively coupled to the first I/0 network includes the

step of storing the first network identification tag in an I/0 device communicatively coupled to

the first I/0 network.

12.    (Original) The method of claim 11, wherein the step of storing the first network

identification tag in the I/0 device communicatively coupled to the first I/0 network includes the

step of storing the first network identification tag in an I/0 interface card communicatively

coupled to the first I/0 network.

13.    (Original) The method of claim 11, wherein the step of storing the first network

identification tag in the I/O  device includes the step of storing the first network identification tag

in an I/O carrier communicatively coupled to the first I/0 network.

14.(Previously Presented) The method of claim 1, wherein transmitting the first network

identification tag on the first I/O network includes the step of transmitting the first network

identification tag on the first I/O network in response to a request for the first network

identification tag.

15. (Previously Presented) The method of claim 1, wherein transmitting the first network

identification tag on the first I/O  network includes the step of periodically transmitting the

first network identification tag on the first I/O network.

16.    (Original) The method of claim 1, further including the steps of communicatively

coupling a diagnostics tool and the first I/O  network; and accessing the first network

identification tag via the diagnostic tool.

17.    (Original) The method of claim 16, wherein the step of accessing the first network

identification tag includes the step of issuing a request for the first network identification tag on

the first I/O  network.

18. (Original) The method of claim 16, wherein the step of accessing the first network

identification tag includes the step of listening for the first network identification tag on the first

I/0 network.

19.    (Original) The method of claim 16, further including the step of identifying a

communication protocol for the first 1/O network.

20.    (Original) The method of claim 16, further including the steps of:

interpreting the received first network identification tag; and

providing an indication representative of the identity of the first I/0 network

on the diagnostic tool.

21. (Original) The method of claim 20, wherein the step of prodding the indication

representative of the identity of the first I/O  network includes the step of displaying the first

network identification tag on the diagnostic tool.

22.    (Original) The method of claim 20, wherein the step of providing the indication

representative of the first I/O network includes the step of displaying the first I/O network

within a configuration diagram.


23. (Cancel) The method of claim 16, further including the steps of

accepting a user provided network identifier for a selected I/O network as an

input:

storing the user provided network identifier;

receiving the first network identification tag from the first I/O network;

comparing the identity of the I/0 network associated with the user provided

network identifier with the identity of the I/O network associated with the first

network identification tag;

generating a first indication if the identity of the I/O network associated with

the first network identification tag matches the identity of the I/O network associated

with the user provided network identifier; and

generating a second indication if the identity of the I/O network associated

with first network identification tag does not match the identity of the I/O network

associated with the user provided network identifier.


24.    (Currently Amended) A process control system comprising:

a user interface;

one or more process controllers communicatively coupled to the user interface

and to a plurality of I/O networks including a first I/O network and a second I/O

network;

a first unit communicatively coupled to the first I/0 network and adapted to

store a first unique network identification tag for the first I/O network and to identify

the first I/O network by communicating the first unique network identification tag on

the first I/O network; [[and]]

a second unit communicatively coupled to the second I/0 network and adapted

to store a second unique network identification tag for the second I/O network and to

identify the second I/O network by communicating the second unique network

identification tag on the second I/O networked

a third unit coupled communicatively coupled to a selected one of the plurality of the I/O

networks and adapted to:

receive a first indication from the selected one of the plurality of the I/O networks, the first

indication identifying, the selected one of the plurality of the I/O networks;

store the first indication;

accept the first unique network identification tae as an input;

store the first unique network identification tag;

compare the first indication with the first unique network identification

tag;

generate a first indicator if the first indication matches the first unique

network identification tag: and

generate a second indicator if the first indication does not match the

first unique network identification tag.

25. (Original) The process control system of claim 24, wherein the first unit includes a routine adapted to be implemented on a processor to create the first network identification tag.

26. (Original) The process control system of claim 24, wherein the first unit includes a routine adapted to be implemented on a processor to ascertain identification tags for each of two or more devices, wherein the two or more devices are communicatively coupled to create a communication pathway from the user interface to the first I/O network.

27. (Original) The process control system of claim 26, wherein the routine combines the identification tags for each of the two or more devices to create the first network identification tag.

28. (Original) The process control system of claim 27, wherein the routine concatenates the identification tags for each of the two or more devices to create the first network identification tag.

29. (Original) The process control system of claim 24, wherein the first unit includes a routine adapted to be implemented on a processor to ascertain a first unique identification tag for a first device communicatively coupled to the user interface and to the first I/0 network and to use the first identification tag to create the first network identification tag.

30.    (Original) The process control system of claim 29, wherein the first device comprises one of the one or more process controllers.

31.    (Original) The process control system of claim 29, wherein the first device comprises an I/0 device.

32.    (Original) The process control system of claim 29, wherein the routine ascertains a second identification tag for a second device communicatively coupling the first device to the I/O network and uses the second identification tag to create the second network identification tag.

33.    (Original) The process control system of claim 32, wherein the routine combines the first identification tag and the second identification tag to create the first network identification tag.

34. (Original) The process control system of claim 33, wherein the routine concatenates the first identification tag and the second identification tag to create the first network identification tag.

35.    (Original) The process control system of claim 24, wherein the first unit comprises a memory and a routine adapted to be implemented on a processor within one of the one or more process controllers.

36.    (Original) The process control system of claim 24, wherein the first unit includes an

I/O device communicatively coupled to the first I/O network.


37.    (Original) The process control system of claim 36, wherein the I/O device comprises

an I/O interface.


38.    (Original) The process control system of claim 36, wherein the 1/O device comprises

an I/O carrier.


39. (Previously Presented) The process control system of claim 24, wherein the first unit

includes a routine adapted to be implemented on a processor to communicate the first network

identification tag on the first 1/O network in response to a request for the first network

identification tag on the first 1/O network.


40. Previously Presented)   The process control system of claim 24,

wherein the first unit includes a routine adapted to be implemented on a processor to

communicate the first network identification tag on the first I/O network on a periodic

basis.


41.    (Original) The process control system of claim 24, wherein the first 1/O network

comprises a bus.

42.   (Original) The process control system of claim 24, wherein the first 1/0 network

comprises a bus adapted to support multiplexed communications.


43.   (Original) The process control system of claim 24, further including a diagnostic tool

adapted to be communicatively coupled to the first 1/0 network and includes a routine adapted

to be implemented on a processor to access the first network identification tag on the first I/O

network.


44.   (Original) The process control system of claim 43, wherein the routine issues a

request for the first network identification tag on the first I/O network.


45.   (Original) The process control system of claim 43, wherein the routine listens for the

first network identification tag on the first I/O network.


46.   (Original) The process control system of claim 43, wherein the routine identifies the

communication protocol for the first 1/0 network.


47.   (Original) The process control system of claim 43, wherein the routine interprets the

first network identification tag received on the I/O network and provides an indication

identifying the first 1/0 network on the diagnostic tool.

48.    (Original) The process control system of claim 47, wherein the routine displays the

first network identification tag on the diagnostic tool.

49. (Original) The process control system of claim 47, wherein the routine displays the

identity of the first I/O network within a configuration diagram.


50.    (Currently Amended) A diagnostic tool for identifying a selected I/O

network in a process control system having a plurality of I/O networks, wherein a

device communicatively coupled to the selected I/O network is adapted to store a

network identification tag identifying the selected I/O network and communicate the

network identification tag on the selected 1/O network, the diagnostic tool comprising:

a port adapted to be communicatively coupled to the selected 1/O network;

a computer readable memory;

a processor;

a first routine stored on the computer readable memory and adapted to be

implemented on the processor to receive the network identification tag from the

selected I/O network; and

a second routine stored on the computer readable memory and adapted to be

implemented on the processor to identify which one of the plurality of I/0 networks is

the selected I/O network based on the received network identification tag;

a third routine stored on the computer readable memory and adapted to be

implemented on the processor to accept an indication of one of the plurality of I/O

networks as an in input;

a fourth routine stored on the computer readable memory and adapted to be

implemented on the processor to compare the identity of the I/O network associated

with the network identification tag received from the selected I/0 network with an

identity of the I/O network associated with the indication of the one of the plurality of

the I/O networks;

a fifth routine stored on the computer readable memory and adapted to be

implemented on the processor to generate a first indication if the identity of the I/O

network associated with the network identification tag received from the selected I/0

network matches the identity of the I/O network associated with the indication of the

one of the plurality of I/0 networks; and

a sixth routine stored on a computer readable memory and adapted to be implemented on

the processor to generate a second indication if the identity of the I/O network associated with

the network identification tag received from the selected I/O network does not match the identity

of the I/O network associated with the indication of the one of the plurality of I/O networks.

51. (Original) The diagnostic tool of claim 50, wherein the first routine issues a request for

the network identification tag over the selected I/O network.

52.    (Original) The diagnostic tool of claim 50, wherein the first routine listens for the

network identification tag being periodically transmitted on the selected I/O network.

53.    (Original) The diagnostics tool of claim 50, further including a third routine stored on

the computer readable memory and adapted to be implemented on the processor to identify a

communication protocol used on the selected I/O network.


54.    (Original) The diagnostics tool of claim 50, further including a third routine stored on

the computer readable memory and adapted to be implemented on the processor to provide an

indication representative of the identity of the selected I/O network.


55.    (Original) The diagnostics tool of claim 54, wherein the third routine displays the

received network identification tag on the diagnostic tool.


56.    (Original) The diagnostic tool of claim 54, wherein the third routine displays the

identity of the I/O network associated with the received network identification tag using a

configuration diagram.


57.    (Original) The diagnostic tool of claim 54, wherein the third routine identifies the I/O

network associated with the received network identification tag using a network configuration

database.


58. (Cancel) The diagnostics tool of claim 50, further including:

a third routine stored on the computer readable memory and adapted to be

implemented on the processor to accept an indication of one of the plurality of I/O

networks as an input;

a fourth routine stored on the computer readable memory and adapted to be implemented on the processor to compare the identity of the I/O network associated with the network identification tag received from the selected I/O network with an identity of the I/O network associated with the indication of the one of the plurality of the I/O networks;

a fifth routine stored on the computer readable memory and adapted to be implemented on the processor to generate a first indication if the identity of the I/O network associated with the network identification tag received from the selected I/O network matches the identity of the I/O network associated with the indication of the one of the plurality of I/O networks; and

a sixth routine stored on a computer readable memory and adapted to be implemented on the processor to generate a second indication if the identity of the I/O network associated with the network identification tag received from the selected I/O network does not match the identity of the I/O network associated with the indication of the one of the plurality of I/O networks.

59.    (Currently Amended) A method for use in a process control system having a plurality of input/output (I/O) networks, the method comprising the steps 0

creating a plurality of unique identification tags for the plurality of I/O networks, respectively; [[and]]

sending a transmission over a selected I/O network of the plurality of I/O networks to

identify the selected I/O network via a respective unique identification tag of the plurality of

unique identification tags for the selected I/O network;

accepting a user provided network identifier for a first one of the I/O networks

from the plurality of I/O networks as an input;

storing the user provided network identifier;

receiving a one of the unique identification taps from a second one of the I/O

networks from the plurality of I/O networks and distinct from the first I/O network;

comparing the one of the unique identification tags received from the second one of the

I/O networks with the user provided network identifier;

generating a first indication to the user if the second one of 1/O networks associated with

the one of the unique identification tags matches the identity of the first one of the I/O networks

associated with the user provided network identifier; and

generating a second indication if the second one I/O network associated with the one of the

unique identification tags does not match the identity of the second one of the I/O networks

associated with the user provided network identifier.

60. (Currently Amended) The method of claim 59, further comprising the step of storing

the respective unique identification tag in a process controller of the process control system,

wherein the process controller is communicatively coupled to the selected I/O network to

support implementation of one or more process control routines.

61. (Currently Amended) The method of claim 59, wherein [[the]] sending [[step]]

comprises the step of periodically broadcasting the transmission on the selected I/O network.

62. (Currently Amended) The method of claim 59, wherein [[the]] sending [[step]]

comprises the step of responding to a request for the transmission to identify the respective

unique identification tag.

### *Reason For Allowance*

1.     Claims 1-22, 24-57 and 59-62 are allowed.

2.     The following is an examiner's statement of reasons for allowance: The closet prior art of

record (US Patent No. 6,880,000 by Tominaga et al) does not  teach nor suggest in detail a

diagnostic method of comparing a user provided network identifier with a prior created network

identification tag and as a result, generated an indication whether there was a match or mismatch.

in combination with all the elements of each independent claim as argued by the Applicant (See

Pages 10-12 of Applicant enabling specification, Page 15 line 5 –Page 16 line 10 of  argument

presented 4/27/2004). Tominaga only teaches about using an IP address method in which portion

of the IP address was used to represent different portion of a network hierarchical structure.

Whereas as claimed by the Applicant, the method of representing a network I/O was further

utilized in a diagnostic process that verified the network I/O in question, was at the correct point

in the network structure.  So as indicated by the above statements, Applicant's arguments have

been considered persuasive in light of the claim limitations as well as the enabling portions of the

specification.

Any comments considered necessary by applicant must be submitted no later than the payment

of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.
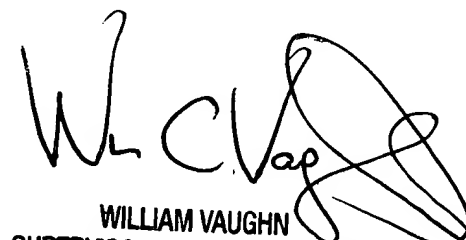
Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael S. A. Delgado whose telephone number is (571)272-

3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn Jr. can be reached on (571)272-3922. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100